

REMARKS/ ARGUMENTS

The Applicants have carefully considered this Application in connection with the Examiner's Action and respectfully request reconsideration of this Application in view of the foregoing amendment and the following remarks.

The Applicants originally submitted Claims 1-21 in the Application. The Applicants have amended Claims 1, 8, and 15 in the present Amendment to correct inadvertent errors. The Amendment should not necessitate a new search since no new subject matter was added. The Applicants have not added or cancelled any claims. Accordingly, Claims 1-21 are currently pending in the Application.

The Examiner has indicated that Claim 20 would be allowable if rewritten in independent form. The Applicants sincerely thank the Examiner. However, the Applicants respectfully contend that each of the pending claims are allowable over the cited prior art as discussed below.

I. Rejection of Claims 1-21 under 35 U.S.C. §112, Second Paragraph

The Examiner has rejected Claims 1-21 under 35 U.S.C. §112, Second Paragraph, for having the language of “at least two corresponding line voltage.” Applicants amend Claims 1, 8 and 15 to now recite “at least two corresponding line *voltages*” instead of “at least two corresponding line *voltage*” as previously presented. Therefore, Applicants request that the rejection of Claims 1-21 under 35 U.S.C. §112, Second Paragraph, be withdrawn.

II. Rejection of Claims 1-3, 5, 7-10, 12, 14-17, 19, and 21 under 35 U.S.C. §102(b)

The Examiner has rejected Claims 1-3, 5, 7-10, 12, 14-17, 19, and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,249,124 to De Mesmaeker ("Mesmaeker"). As the Examiner is no doubt aware, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference; the disclosed elements must either be disclosed expressly or inherently and must be arranged as in the rejected claims.

As also discussed in the previous Amendment, filed August 29, 2006, Claim 1, as currently amended, recites a phase voltage circuit comprising a line voltage stage that is coupled to at least three input voltage lines, configured to provide at least two corresponding line voltages. A first corresponding line voltage of the at least two corresponding line voltages is a function of a comparison between a first input voltage line and a second input voltage line of the at least three input voltage lines. A second corresponding line voltage of the at least two corresponding line voltages is a function of a comparison between the first input voltage line and a third input voltage line of the at least three input voltage lines. *A difference voltage stage, coupled to the line voltage stage, is configured to provide at least one phase voltage from the at least two corresponding line voltages.* (Emphasis added).

Mesmaeker is generally directed to monitoring faults at electric lines. According to FIG. 6 of Mesmaeker, differential amplifiers D2 through D4 are coupled to a single "monitored phase" of Mesmaeker (e.g., 'R') of a multi-phase line system ("RST") of FIG. 6. The output of differential amplifiers of D2-D4 are output as reference signals A2-A4, which are to be employed by a phase angle monitoring circuit of FIG. 7, as will be described below. A differential amplifier D1 may receive input associated with "T" and "S" of RST. The output of either differential amplifier D1 or

an inverter IV1 is, as selected by switch S1, output as reference signal A1, which is also to be employed by the phase angle monitoring circuit of FIG. 7, as will be described below. (See Col. 4, line 42- col. 5, line 26).

In the phase angle monitoring circuit of FIG. 7 of Mesmaeker, trigger circuits TR1-TR4 monitor output reference signals A1-A4. Output reference signals A1-A4 are then conveyed to an OR gate having an output 75. Output 75 is employed by the phase angle monitoring circuit to help determine whether to convey an input AR to an output AS, or whether this conveyance is to be blocked. Conveying or blocking the conveyance of input AR to AS correlates to a fault state and a fault state associated with the "monitored phase" of FIG. 6. (See col. 5, line 49 – col. 6, line 20).

The Examiner has indicated that Mesmaeker discloses "a difference voltage stage (D1, D2), coupled to said line voltage stage, configured to provide at least one phase voltage, wherein each at least one phase voltage is derived from said at least two corresponding line voltages (Col. 7, lines 44-46)." (Examiner's Action, page 3.) The Applicants respectfully disagree with the Examiner as to this characterization of Mesmaeker.

Col 7, lines 44-46 of Mesmaeker recite claim language for Mesmaeker, specifically dependent Claim 2. Col 7, lines 44-46 of Mesmaeker read: "deriving a voltage signal from at least one phase of the line voltage of the line system which phase differs from the monitored phase to form said external signal."

The Applicants respectfully state that Mesmaeker does not disclose or suggest the invention of Claim1 as recited in the above claimed language, for at least the reasons to be discussed below. (Furthermore, the Applicants are unable to discern where the claim language of 'the monitored phase' of dependent Claim 2 of Mesmaeker has an antecedent basis).

A 'line voltage' as characterized in Mesmaeker is not the same as the 'line voltage' as claimed in independent Claim 1. The 'line voltage' of Mesmaeker is the voltage of a 'monitored phase' (such as 'R') compared to what is effectively an implicit ground voltage. For instance, see vector diagrams of FIGs. 1-5 of Mesmaeker, and line voltage measuring transducer UMR, which is compared to a voltage that is compared to a grounded impedance Z2-Z4.

For example, in Mesmaeker:

Now the circuitry shown in FIGS. 6 and 7 ... will be seen to comprise a line voltage-measuring value transducer or transformer UMR which is connected with the monitored phase R of a three-phase line system or network R, S, T. The line voltage-measuring value transducer UMR comprises a voltage converter 50 ... (Column 4, lines 52-64).

In Claim 1 of the present Application, however, a 'line voltage' is instead a function of a comparison between a *first input voltage line* and a *second input voltage line* of at least three input voltage lines. A 'line voltage' as characterized in Mesmaeker is not the same as the 'line voltage' as claimed in independent Claim 1.

Furthermore, in the present Application, a 'phase voltage' or 'phase voltages' are generally defined as "correspond[ing] to voltages that exist between a virtual neutral point and the three input voltage lines a, b, c, respectively." (Application, page 7, paragraph 19). In Claim 1, *a difference voltage stage, coupled to the line voltage stage, is configured to provide at least one phase voltage from the at least two corresponding line voltages.* (Emphasis added).

In Mesmaeker, however, two "phases" (the 'monitored phase' and a phase which differs from the 'monitored phase') are used to generate an 'external signal.' This external signal of Mesmaeker is not the "phase voltage" of Claim 1, as a "phase voltage" (or "phase voltages") are generally defined, as discussed above, as "correspond[ing] to voltages that exist between a virtual neutral

point and the three input voltage lines a, b, c, respectively.” (Application, page 7, paragraph 19).

Therefore, the phase of Mesmaeker is not the phase voltage of the present invention of Claim 1.

Therefore, Mesmaeker does not disclose each and every element of the claimed invention and as such, is not an anticipating reference. Nor, for analogous reasons, is Mesmaeker an anticipating reference for independent Claims 8 and 15. Because Claims 2-3, 5, 7, 9-10, 12, 14, 16-17, 19, and 21 are variously dependent upon Claims 1, 8, and 15, Mesmaeker also cannot be an anticipating reference for Claims 2-3, 5, 7, 9-10, 12, 14, 16-17, 19, and 21. Accordingly, the Applicants respectfully request the Examiner to withdraw the 35 U.S.C §102(b) rejection with respect to these Claims.

III. Rejection of Claims 4, 6, 11, 13 and 18 under 35 U.S.C. §103

The Examiner has rejected Claims 4, 6, 11, 13 and 18 under 35 U.S.C. §103(a) as being unpatentable over Mesmaeker. As the Examiner is no doubt aware, determination of obviousness requires consideration of the invention considered as a whole; the inquiry is not whether each element exists in the prior art, but whether the prior art made obvious the invention as a whole. Furthermore, there must be some suggestion or teaching in the art that would motivate one of ordinary skill in the art to arrive at the claimed invention; a reference that teaches away from a claimed invention strongly indicates nonobviousness.

The Examiner has stated that “De Mesmaeker does not disclose a second of said two differential amplifiers [that] provides a second line voltage by subtracting said first input voltage from a third input voltage.” The Applicants agree with the Examiner.

The Examiner then states:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the difference amplifiers [that] provides a second line voltage by subtracting said first input voltage from a third input voltage because De Mesmaker teaches deriving the phase voltage from the line voltage" (De Mesmaecker's col. 7, lines 44-46). (Examiner's Action, page 4.)

As discussed above, Mesmaecker does not disclose deriving the phase voltage from the line voltage in Column 7, lines 44-46, as the "phase voltage" of De Mesmaecker is not the "phase voltage" of independent Claim 1.

Mesmaecker, therefore, fails to teach or suggest the invention recited in independent Claims 1, 8 and 15 and their dependent claims, when considered as a whole. Claims 4, 6, 11, 13 and 18 are therefore also not obvious in view of Mesmaecker.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claims 4, 6, 11, 13 and 18 under 35 U.S.C. §103(a). The Applicants therefore respectfully request the Examiner withdraw the rejection.

IV. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-21.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present Application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "J. Joel Justiss".

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